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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/808,536	03/14/2001	Olli Talvitie	460-010212-US(PAR)	3804

7590

01/30/2004

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EXAMINER

BEHULU, ALEMAYEHU

ART UNIT

PAPER NUMBER

2682

DATE MAILED: 01/30/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/808,536

Applicant(s)

TALVITIE ET AL.

Examiner

Alemayehu Behulu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

The abstract of the disclosure is objected to because the last line "Fig. 1a" should be deleted.

Correction is required *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

1. Claims 1, 3, 11 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the phrase "essentially" at page 12, line 17 render the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). The office suggests that the above-maintained phrase should be deleted.

Regarding claim 3, the phrase "essentially" at page 12, line 29 render the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). The office suggests that the above-maintained phrase should be deleted.

Regarding claim 11, the phrase "essentially" at page 15, line 10 render the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). The office suggests that the above-maintained phrase should be deleted.

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Regarding claim 13, the phrase "essentially" at page 15, line 22 render the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). The office suggests that the above-maintained phrase should be deleted.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 4, 5, 11, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quist (U.S. Patent No. 5, 726, 566) further in view of Kim (U.S. Patent No. 5, 923, 297).

Regarding claims 1 and 11, Quist discloses a system for measuring a radio frequency in a wireless station (figure 1, number 12), whereby the system comprises at least testing equipment (figure 1, numbers 20, 22 and 24), the testing equipment comprises at least testing apparatus (figure 1, number 24), a measuring head (figure 1, number 20) and means (figure 1, number 22) for transmitting electrical signals between testing apparatus (figure 1, number 24) and measuring head (figures 1-3, number 20), and wireless station (figure 1, number 10) comprises at least one radio part (figure 2, number 32, 34, and 36), a wiring board (column 1, lines 46-56 and figure 3, number 60 and column 2, lines 27-30) and antenna (figure 2, number 44) and switching means (figure 2, number 50 and figure 3, number 86) and the measuring head (figures 1-3, number 20)

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characterized in that a switching aperture (figure 3, number 92 and column 2, lines 42-55) is provided in the wiring board (column 1, lines 46-56 and figure 3, number 60 and column 2, lines 27-30) at least partly at the location of switching means (figures 1, number 50 and figure 3, number 86). However, Quist fails to disclose at least a first position in which the radio frequency signal is arranged to be directed between the radio part of the wireless station and the antenna, and second position, in which the radio frequency signal is arranged to be directed between the radio part of the wireless station and the testing apparatus and through which aperture switching means is arranged to be switched to the second position. But, Kim discloses at least a first position in which the radio frequency signal is arranged to be directed between the radio part of the wireless station and the antenna (figure 5A and column 5, lines 3-17) and second position, in which the radio frequency signal is arranged to be directed between the radio part of the wireless station and the testing apparatus through which aperture switching means is arranged to be switched to the second position (figure 5B and column 5, lines 3-17). Therefore, at the time of the invention was made it would have been obvious to a person of an ordinary skill in the art to combine Quist (U.S. Patent No. 5, 726, 566) with Kim (U.S. Patent No. 5, 923, 297) in order to have the flow of RF signal and at the same time able to measure the signal when necessary.

Regarding claims 3 and 13, the combination of Quist and Kim disclose a system according to claims 1 and 11 respectively, in which the wireless station (see Quist, figure 1, number 10) also comprises at least a shell (see Quist, figure 1, number 14), characterized in that a testing aperture (see Quist, figure 1, number 18) is provided in shell (see Quist, figure 1, number 14) at least partly at the location of the switching aperture (see Quist figure 3, number 92 and column 2,

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lines 42-55), through which testing aperture (see Quist, figure 1, number 18) and switching aperture (see Quist figure 3, number 92 and column 2, lines 42-55) where switching means (see Quist figures 1, number 50 and figure 3, number 86), is arranged to be switched to the second position (see Kim figure 5B and column 5, lines 3-17).

Regarding claim 4, the combination of Quist and Kim disclose a system according to claim 1, characterized in that switching means (see Quist, figure 2, number 50 and figure 3, number 86) is arranged to be switched to the second position (see Kim figure 5B and column 5, lines 3-17) with the measuring head (see Quist, figures 1-3, number 20).

Regarding claim 5, the combination of Quist and Kim disclose a system according to claim 4, characterized in that the measuring head (see Quist, figures 1-3, number 20) also comprises grounding (see Quist, figure 2, grounding under number 52 and 56 and figure 3, number 90) for providing a grounding connection for the testing apparatus (see Quist, figure 1, number 24) while testing probe (see Quist, figures 1-3, number 20) is connected to switch means (see Quist figures 1, number 50 and figure 3, number 86).

Regarding claim 14, the combination of Quist and Kim a method according to claim 11, characterized in that for carrying out measurement, switching is switched to the second position (see Kim figure 5B and column 5, lines 3-17) with the measuring head (see Quist, figures 1-3, number 20).

3. Claims 2 and 12, are rejected under 35 U.S.C. 103(a) as being unpatentable over Quist (U.S. Patent No. 5, 726, 566) and Kim (U.S. Patent No. 5, 923, 297) further in view of Phillips (U.S. Patent No. 6, 400, 965).

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Regarding claims 2 and 12, the combination of Quist and Kim disclose a system according claims 1 and 11 respectively. However, Quist and Kim fail to disclose property of the radio frequency signal, such as power, frequency, sensitivity, bit error rate or modulation spectrum, which has an effect on the performance, is arranged to be measured. But, Phillips discloses property of the radio frequency signal, such as power, frequency, sensitivity, bit error rate or modulation spectrum, which has an effect on the performance, is arranged to be measured (column 5, lines 56-column 6, lines 2). Therefore, at the time of the invention was made it would have been obvious to a person of an ordinary skill in the art to combine Quist (U.S. Patent No. 5, 726, 566) and Kim (U.S. Patent No. 5, 923, 297) with Phillips (U.S. Patent No. 6, 400, 965) in order to determine the coverage area and data through put of the wireless device.

4. Claims 6, 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quist (U.S. Patent No. 5, 726, 566) and Kim (U.S. Patent No. 5, 923, 297) further in view of Marvet, (U.S. Patent No. 5, 365, 027).

Regarding claims 6, 8, and 15 the combination of Quist and Kim disclose a system according to claims 1 and 11 respectively, comprises at least one grounding connection (see Quist, figure 3, numbers 62-1, 62-2, and 62-3 and 90) on the wiring board (see Quist, figure 3, number 60 and column 2, lines 27-41), means (see Quist, figure 1, number 22), testing apparatus (see Quist, figure 1, number 24), with means (see Quist, figure 1, number 22) measuring head (see Quist, figures 1-3, number 20), testing aperture (see Quist, figure 3, number 92 and column 2, numbers 42-55), wiring board (see Quist, column 1, lines 46-56 and figure 3, number 60 and column 2, lines 27-41) wireless station (see Quist, figure 1, number 12), switching means (see Quist, figure 2, number 50 and figure 3, number 86) and the radio part (see Quist, numbers 32, 34 and 36) and

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pushing switching means to the second position (see Kim, figure 5B, and column 5, lines 3-17) by means of the measuring head (see Quist, figures 1-3, number 20), one grounding connection (see Quist, figure 2, refer to ground under number 56 and 52 and figure 3, numbers 62-1, 62-2, and 62-3), whereupon the grounding means are coupled to an electrically conductive connection in the grounding connection, the measuring head (see Quist, figures 1-3, number 20) is coupled to an electrically conductive connection in the measuring connection (see Quist, column 2, lines 10-41), whereupon the radio frequency signal is directed between radio part of wireless station and the testing apparatus via switching means (see Kim, figure 5B and column 5, lines 3-17). However, Quist and Kim, fail to disclose testing card and means for coupling the testing card to the wireless station, which testing card is arranged to be placed in means for coupling the testing card to the wireless station, that the measuring head is installed in a testing aperture formed in the wiring board of the wireless station, that the testing card comprises at least mode switching and measuring connection. But, Marvet discloses testing card (figures 1, 2 and 6, number 100 and column 2, lines 57-68) and means for coupling the testing card (figure 6, numbers 610 and 612 and column 3, lines 63-column 4, lines 26) to the wireless station, which testing card (figures 1, 2 and 6, number 100) is arranged to be placed in means for coupling the testing card to the wireless station (figure 6, numbers, 100 and 616) and the testing card comprises at least mode switching (figures 1-3, 5 and 6, number 134 and column 2, lines 57-column 3, lines 18) and measuring connection (figure 6, number 614 and figure 7, number 602, 604 and column 4, lines 27-52). Therefore, at the time of the invention was made it would have been obvious to a person of an ordinary skill in the art to combine Quist (U.S. Patent No. 5, 726, 566) and Kim (U.S.

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Patent No. 5, 923, 297) with Marvet, (U.S. Patent No. 5, 365, 027) in order to measure the RF signal accurately via card after assembly.

5. Claims 7, 9, 10, 16, 17, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quist (U.S. Patent No. 5, 726, 566), Kim (U.S. Patent No. 5, 923, 297), and Marvet (U.S. Patent No. 5, 365, 027) further in view of Phillips (U.S. Patent No. 6, 400, 965).

Regarding claims 7 and 16, the combination of Quist, Kim, and Marvet disclose a system according to claim 6 and 15 respectively, in which the wireless station (see Quist figure 1, number 12) comprises at least measuring head (see Quist figure 1-3, number 20) returning device (see Marvet figure 2, number 132 and column 3, lines 1-18), characterized in the measuring head (see Quist figures 1-3, number 20) is installed in a switching aperture (see Quist figure 3, number 92 and column 2, lines 42-55) formed in the wiring board (see Quist, column 1, lines 46-56 and figure 3, number 60 and column 3, lines 27-41) testing card (figures 1, 2 and 6, number 100 and column 2, lines 57-68) and switching means (figure 2, number 50 and figure 3, number 86). However, Quist, Kim, and Marvet fail to disclose SIM card slot. But, Phillips discloses SIM card slot (figures 1, 4, 5 number 100 and figure 5, number 550). Therefore, at the time of the invention was made it would have been obvious to a person of an ordinary skill in the art to combine Quist (U.S. Patent No. 5, 726, 566), Kim (U.S. Patent No. 5, 923, 297), and Marvet (U.S. Patent No. 5, 365, 027) with Phillips (U.S. Patent No. 6, 400, 965) in order to save space by utilizing one slot for dual purpose.

Regarding claims 9 and 18, the combination of Quist, Kim, and Marvet disclose a system according to claims 6 and 15 respectively, comprises the wireless station (see Quist, figure 1,

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number 12), means (see Marvet figures 1, 4, 5 number 100 and figure 5, number 550) and testing card (see Marvet, figures 1, 2 and 6, number 100 and column 2, lines 57-68). However, Quist, Kim, and Marvet fail to disclose at least one SIM card. But, Phillips discloses the wireless station comprises at least one SIM card (figure 6, number 600 and column 4, lines 58-column 5, lines 12). Regarding to the claimed limitation that the test card is arranged to be placed instead of the SIM card, it should be noted that the test card of Marvet (figure 1, 2 and 6, number 100) by it self can be placed in the wireless station (figure 6, number 600) and RF signal can be switched to different positions as presented on (figure 7 and column 3, lines 63-column 4, lines 43), at the same time the SIM slot of Phillips has the capability of both functions as a standard SIM card reader and testing RF signals (column 5, lines 55-column 6, lines 2). Therefore, it can be appreciated by a person of ordinary skill in the art that the card of Marvet can be used in conjunction with the slot of Phillips. Hence, at the time of the invention was made it would have been obvious to a person of an ordinary skill in the art to combine Quist (U.S. Patent No. 5, 726, 566), Kim (U.S. Patent No. 5, 923, 297), and Marvet (U.S. Patent No. 5, 365, 027) with Phillips (U.S. Patent No. 6, 400, 965) in order to have compact device.

Regarding claims 10 and 19, the combination of Quist, Kim, and Marvet disclose a system according to claim 9 and 18 respectively, wherein that the testing card (see Marvet, figures 1, 2 and 6, number 100 and column 2, lines 57-68) comprises means for implementing at least one functional property of the SIM card (see Phillips, figure 6, number 600 and column 4, lines 58-column 5, lines 12), such as a microprocessor and memory (figure 5, numbers 202 and 140).

Regarding claim 17, (the operation of the components are as set forth in claims 8 and 15 above, only the components will be discussed here), the combination of Quist and Kim disclose a

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method according to claim 11, whereby the wireless station (see Quist, figure 1, number 12), the wiring board (see Quist, column 1, number 46-56 and figure 3, number 60 and column 2, lines 27-41), at least one grounding connection (see Quist figure 2, number 52 and 54 and figure 3, numbers 62-1-62-3 and column 2, lines 27-41) on the wiring board (see Quist, figure 3, number 60 see Quist, column 1, number 46-56 and figure 3, number 60 and column 2, lines 27-41), testing equipment (see Quist, figure 1, numbers 20, 22, and 24), testing apparatus (see Quist, figure 1, numbers 24), with means (see Quist, figure 1, numbers 22), at least one measuring head (figures 1-3, number 20), and grounding means (figure 2, ground under connection 56 and 52 and figure 3, numbers 62-1-62-3 and column 2, lines 27-41) switching means (see Quist, figure 2, number 50, and figure 3, number 86), radio part (see Quist, figure 2, numbers 32, 34, and 36). However, Quist and Kim, fail to disclose test card. But, Marvet discloses test card (figure 1, 2 and 6, number 100 and column 2, lines 57-68). Therefore, at the time of the invention was made it would have been obvious to a person of an ordinary skill in the art to combine Quist (U.S. Patent No. 5, 726, 566) and Kim (U.S. Patent No. 5, 923, 297) with Marvet, (U.S. Patent No. 5, 365, 027) in order to measure the RF signal accurately after assembly via card. However, Quist, Kim, and Marvet fail to disclose SIM card slot in which SIM card is placed. But, Phillips discloses SIM card slot (figures 1-4 and 5, number 100 and figure 5, number 550) in which SIM card is placed (figure 6, number 600 and column 4, lines 58-column 5, lines 12). Therefore, at the time of the invention was made it would have been obvious to a person of an ordinary skill in the art to combine Quist (U.S. Patent No. 5, 726, 566), Kim (U.S. Patent No. 5, 923, 297), and Marvet (U.S. Patent No. 5, 365, 027) with Phillips (U.S. Patent No. 6, 400, 965) in order to save space by utilizing one slot for dual purpose.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alemayehu Behulu whose telephone number is 703-305-4828. The examiner can normally be reached on 8 AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 703-308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-746-3501.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

AB

Nguyen Vo
1-23-2004

NGUYEN T. VO
PRIMARY EXAMINER